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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,057	08/21/2002	John Cutmore	APV 31537	5410

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EXAMINER

BELL, BRUCE F

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/018,057	Applicant(s) CUTMORE ET AL.	
	Examiner Bruce F. Bell	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 and 9-11 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/14/01, 1/6/03, 1/27/03, 2/10/03</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6, and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant's instant specification and instant claims as set forth show at least one support member in the channel, the support member having a shoulder portion adapted to abut a complementary surface of the cathode plate. The examiner in charge of this application does not see how the support member by being adapted to abut a complementary surface, gives support in the edge strip channel as set forth. The examiner could see how support would be there if the support member was thicker than the cathode plate or was somehow connected to the cathode plate, or notched to fit together with the cathode plate, however, the examiner can not see how abutting the support member to the cathode plate yields support of the cathode plate in the edge strip. Applicant's further have not disclosed in their instant specification that the support member and end cap are made of unitary construction as set forth in instant claim 5.

Claim Objections

2. Claim 8 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 8 fails to further limit the apparatus features of the cathode plate. The mere recitation to the functionality of the tab extending longitudinally in the channel as set forth in claim 8 does not further limit the structure of the cathode plate as set forth in claim 7.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-4, 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Cutmore et al (6193862)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Cutmore et al disclose edge protector strips for electrolytic cell electrode plates wherein a protector strip 10 for an edge zone of an electrode plate 40 includes a first channel shaped member 11 of a resilient material adapted to engage over the edge zone of the electrode plate and a second channel shaped member 12 of a more rigid material separate from the first channel shaped member 11 is adapted to engage over the first channel shaped member 11 to press at least a portion of the first channel shaped member 11 into sealing engagement with the edge zone of the electrode plate 40. The protector strip 10 is formed by modular section and is adapted to join successive modular sections one to another so that a channel shaped formation defining an inner groove 13 is adapted to fit over the edge zone of the electrode plate. See abstract. The first channel shaped member 11 is adapted to fit into the groove formation 13 and the member 11 provides an internal space 15 adapted to fit over an

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edge zone of the electrode plate to be protected against unwanted deposition of metal. The first channel shaped member 11 has a pair of spaced apart legs 16 connected at one end by a base web 17 with relief grooves 18 and at the other end 19 of the legs 16, an open face 20 is provided with projecting portions 21 directed inwardly across the open face 20 to provide sealing portions when an electrode plate edge zone is inserted into the space 15. See col. 3, lines 25-37. The second channel shaped member 12 is formed by modular sections and the joint formation of those modular sections is by connecting a male formation to a female joint formation to form the particular outer channel size needed for the electrode edge length that is needed. See col. 3, line 60 – col. 4, line 3. Once the inner and outer channels are assembled, an outward pressure created by the resilient channel member 11 captured between the channel shaped member 12 and edge zone of the electrode plate being protected, prevents the modular sections from unintentionally separating. See col. 4, lines 21-26. The protector strip sections are assembled and attached to each other via corner assemblies 43. The corner assembly 43 has an inner corner channel shaped member 46 which fits snugly adjacent the channel shaped member portions 11 and over the corner portion of the cathode plate. The angled portions 48 of the corner modular portions 47 fit snugly adjacent each other when assembled. A further corner cover portion 49 is provided to fit over the corner to provide additional protection to the assembly. See col. 4, lines 37-42 and 53-67.

The prior art of Cutmore et al anticipates the applicant's instant invention as set forth in the instant claims as shown above. The recitation in the instant claims with

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respect to the support member in the channel and providing a shoulder portion to abut a complementary surface of the cathode plate and support the cathode plate appears to have been met by the channel member 11 which is longitudinal in shape and runs along the entire channel length of the outer channel member 12. Further, the channel member 11 has a support member with shoulder portions 21 which abut the complementary surface of the cathode plate when the plate is inserted therein. It further appears that since the channel member 11 runs the entire length of the outer channel member 12, that it is a series of support members along its length. The channel member being formed inside the outer channel member 12 and having the shoulder portions 21 makes the support member 11 an integrally formed edge strip. The angled portions 48 that meet to form the corners of the modular portions 47 and the corner piece 46 that connects the inner channel members 11 together, inside the modular portions 47 are considered by the examiner to be the end caps of the edge strips for each side of the edge strip. Further, the corner cover portion 49 can also be considered to be the end cap that fits over the edge strip assembly.

Therefore, the prior art of Cutmore et al anticipates the applicant's instant invention as set forth above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cutmore et al (6193862) in combination with WO 97/41280 (Connolly).

Cutmore et al is as disclosed above in the 35 USC 102 rejection above.

Cutmore et al does not teach that the support member and end cap are of unitary construction.

Connolly discloses support members in the corners of the edge strips that connect one edge strip to another wherein these support members are interconnected with the corner molding 21 (end cap) by molding the corner cover the edge strips 20 with the wedge clips 22 and 23 completing the enclosure of the adjacent ends of the edge strip to restrict ingress of material into the corner section of the cathode plate. The internal surfaces of the wedge clips may be grooved at that portion 24 of the wedge clips 22 and 23 to receive a sealant such as silicone or similar elastomeric material to improve the sealing between the corner molding and the edge clip.

The prior art of Cutmore et al in combination with Connolly renders the applicant's instant invention as obvious because Connolly shows that it is known in the art to make the support member and end cap (corner cap) of unitary construction by using a sealant of an elastomeric material to bond to the edge clip within the edge strip. It appears that since applicant's instant invention shows the support member 50 as being a separate piece from that of the end cap 30 that they intend that when assembled that the construction is unitary. Therefore, the examiner takes the position that Connolly shows such a unitary construction in the art and therefore, one having

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ordinary skill in the art would know from the Connolly patent how to make such a unitary piece to be used in the making of edge strips such as that of Cutmore et al to prevent egress of electrolyte solution into the areas of the edge strips. Therefore the prior art of Cutmore et al in combination with Connolly renders the applicants instant invention obvious for the reasons set forth above.

Allowable Subject Matter

7. Claims 7, 9-11 are allowable over the prior art of record.

8. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach and/or suggest a cathode plate having a tab portion extending longitudinally in a channel of the edge strip, which tab portion mates with a complementary recess formed in a respective corner of a cathode plate, with each respective recess defining a discrete bottom edge portion concealed within the edge strip and spaced apart from an exposed bottom edge of the plate.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. The prior art of Dwyer et al discloses the removal of mother plate corners wrapped within the abutting ends of side and bottom edge strips. An insert with at least one anchor is adapted to frictionally engage the end of the strip mounted along the edge of the mother plate. The insert and its anchors are designed to completely fill the void left by the missing corners of the mother plate, thereby preventing penetration of

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electrolyte and accumulation of deposits. The insert may be incorporated into the edge strip end as an integral component of the strip.

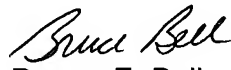
Although the prior art of Dwyer et al appears to read on applicant's instant claims as set forth, the prior art does not qualify as art under 35 USC 102.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce F. Bell whose telephone number is 571-272-1296. The examiner can normally be reached on Monday-Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BFB
February 15, 2005


Bruce F. Bell
Primary Examiner
Art Unit 1746